Donald Webster

06/26/01 03:40 PM

To: "Showers, Dale" <DShowers@Brwncald.com>

cc: dmccabe@textron.com, dwilliams@grenadamfg.com, john.bozick@arvinmeritor.com, RAsh@Brwncald.com

Subject: Re: Grenada Manufacturing Design Basis Report

Dale;

Yes, the EPA comments dated May 23, 2001 from Don Webster plus the SESD comments from Sharon Mathews dated June 8, 2001 were intended to be EPA's official comments on the Design Basis Report for the Permeable Reactive Barrier. EPA comments 3., 4., and 6. from Don Webster should be considered as recommendations rather than requirements. The primary regulatory agency for wetlands related considerations will not be the RCRA Program of the Waste Division at EPA. In addition, comment 10. may have overstated the potential for the need to modify the RCRA Permit for the remediation activity. Louis Crawford commented that he had yet to encounter a single instance where a facility needed to store remediation waste for more than the 90 days allowed under the generator status standards.

I am making this communication modifying the previous two sets of comments a part of the official record of the Interim Measures Workplan for the facility. I see no need to establish a regulatory deadline for the response to these comments since your previously established schedule for implementation of the Interim Measure is still effective. As I mentioned in our phone conversation, Sharon Mathews, our P.G. from SESD would like to visit the facility during installion of the Interim Measure. And, I forgot to ask, any word yet from the Corps of Engineers on the necessity for a 'wetlands' or 'dredge & fill' permit?

Sincerely, Don Webster


Grenada Comments01-08 Grenada Design Basis Comme

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06/26/01 01:21 PM

To: Donald Webster/R4/USEPA/US@EPA

cc: "'john.bozick@arvinmeritor.com'" <john.bzick@arvinmeritor.com>, "'dwilliams@grenadamfg.com'" <dwilliams@grenadamfg.com>, "'dmccabe@textron.com'" <dmccabe@textron.com>, "Ash, Robert" <RAsh@Brwncald.com>

Subject: Grenada Manufacturing Design Basis Report

Don,

Back on May 23 you copied me on an e-mail to Louis Crawford at MDEQ re: the referenced site/report. The e-mail included an attachment with draft comments on the Design Basis Report for the groundwater interim measure. Have you issued a final, official letter with comments? If so, I have not

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received a copy and would appreciate one. If not, do you expect to issue one? In essence, I am trying to find out if there will be any additional and/or different comments than those in your May 23 e-mail and the June 12 memo from SESD. We will need to know to prepare responses. Please let me know the status. Thanks.

Dale R. Showers, P.E.
Brown and Caldwell
Nashville, TN
615.250.1241

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 4, SCIENCE and ECOSYSTEM SUPPORT DIVISION
ATHENS, GA 30605-2720

4SESD-EIB

MEMORANDUM

SUBJECT: SESD EIB-ES Review of the Design Basis Report for the Permeable Reactive Barrier, Grenada Manufacturing Site, Grenada, MS; EPA Id No. MSD 007 037 278; SESD Project No. 01-0808

FROM: S. E. Matthews, P.G.
Enforcement Section SEM 6/8/01

TO: Don Webster
South Programs Section
RCRA Programs Branch

The following is the SESD EIB-ES review of the subject document. If you have any questions about my comments, please contact me at (706) 355-8608 or at email *matthews.sharon @epa.gov.*

Section 1

pg 1-7: Regarding the use of zero valence iron, an Innovative Technology Summary Report on Permeable Reactive Treatment (PeRT) Wall for Rads and Metals (DOE/EM-0557, September 2000, page 2) states that "Because iron and manganese are commonly released from the ZVI (zero-valent iron) into the groundwater, an air sparging system can be used to control dissolved iron and manganese concentrations in the groundwater at the downgradient side of the gate". Even though the Grenada permeable reactive barrier (PRB) will be continuous, has the possibility of the iron/manganese issue been considered?

Section 2:

pg 2-2: What is the permeability of the marl?

pg 2-5: "Certain inorganic compounds at high concentrations may have an adverse impact on the degradation of VOCs by granular iron". Please specify which inorganic compounds, considering that chromium is a constituent of concern for this site.

Section 3

pg 3-2: "To help insure adequate capture of the groundwater plumes, the wall will be tied into the aquitard a minimum of 1 foot...". For some designs, a geotextile fabric or concrete layer can be applied horizontally to the PRB to prevent underflow - has this been considered for this site?

pg 3-3: It appears that the plume may have reached the river, therefore, the PRB will be installed within some of the plume. What considerations have been made for any equipment that may become contaminated from being used in the plume?

Sections 4, 5 &6: No comment.

Section 7

pg 7-1: Since chromium has been noted as a constituent of concern for this site, it is unclear why it is not included as a parameter to monitor the effectiveness of the PRB.

pg 7-1: Based on previous case studies utilizing PRBs, it has been recommended that performance monitoring can be accomplished by measuring pH increases in the wall and Eh decreases downgradient, as well as downgradient reductions in the contaminants of concern. In addition, water quality measurements such as dissolved oxygen, sulfides and alkalinity have also proven to be important performance indicators.

Comments: Design Basis Report, Permeable Reactive Barrier, Grenada Manufacturing Site

1. The Design Basis Report calls for raising the potentiometric surface of the Outfall Ditch by placing geotextile fabric, GLC and riprap on top of the sediments deposited in the ditch. The RFI report states that the ditch is only 6 inches to 2 feet deep. Is it possible to raise the potentiometric surface of a ditch this shallow without excavating?

2. The Outfall Ditch is also a Solid Waste Management Unit, known as SWMU #7. SWMU #7 was listed as 'no further action' in the facility's RFI. However, no samples of sediment have been obtained since 1993. Before covering existing sediments which may be contaminated, sediment testing should be done to determine present levels of constituents of concern (COCs). EPA recommends re-testing along the length of the Outfall Ditch at different depths using the same organic and inorganic parameters as the 1993 Eckenfelder study, plus TCLP and Cr +6. If sediment COCs are found to be higher than recommended action levels, then the contaminated sediment will need to be removed and properly disposed of prior to adjusting the potentiometric surface.

3. Before disturbing the wetlands area the facility should conduct an environmental survey to determine if any of the following Mississippi Threatened or Endangered species are present. If any Threatened or Endangered species are found to be present, appropriate protective measures should be taken in accordance with State and Federal law.

Symbol	Scientific Name	Common Name	Federal Status
APPR	Apios priceana B.L. Robins.	Price's potato-bean	Threatened
COCA19	Conradina canescens	Gray false rosemary	Threatened
COBR5	Conradina brevifolia	Shinners Short-leaved rosemary	Endangered
ISLO	Isoetes louisianensis Thieret	Louisiana quillwort	Endangered
LIME7	Lindera melissifolia (Walt.)Blume	Pondberry	Endangered
SCAM	Schwalbea americana L.	American chaffseed	Endangered

4. EPA recommends that the gravel road be left in place to provide access for future monitoring vehicles and personnel until groundwater cleanup is complete. This time period may take as long as twenty or thirty years. Once cleanup is complete, the road can be removed and the site returned to a more natural state.

5. The Design Basis Report should state what length of the outfall ditch will be affected. EPA's rough calculation is that about 1,200 feet or more will be affected. The outfall ditch looks like it may have been a natural stream at one time. Was it?

6. EPA recommends that natural vegetation be restored to disturbed areas using native or non-native plants that are common in marshes. Re-channelized stream banks on the Outfall Ditch can be stabilized with plants which root from live stakes, such as Chinese privet, (scientific name - Ligustrum sinense); Weeping willow, (scientific name - Salix babylonica) and others. This

vegetation will strengthen the rip rap placed on the banks. See [FISRWG (10/1998). Stream Corridor Restoration: Principles, Processes, and Practices. By the Federal Interagency Stream Restoration Working Group (FISRWG)(15 Federal agencies of the US gov't). GPO Item No. 0120-A; SuDocs No. A 57.6/2:EN 3/PT.653. ISBN-0-934213-59-3.

7. The Design Basis Report does not appear to provide adequate controls to prevent runoff of potentially contaminated water from de-watering of spoils in staging piles into Riverdale Creek. Please elaborate on controls that will be used to prevent contaminated water runoff into areas other than the slurry trench.

8. The Design Basis Report does not appear to call for personal protective equipment or testing of vapors in the vicinity of the excavation for the slurry trench.

9. EPA recommends adding a chapter to the Design Basis Report to discuss the environmental considerations of the project.

10. Installation of the Reactive Barrier Wall can go on under the facility's Interim Measures (IM). In other words, work such as a barrier can occur without a HSWA permit modification. However, aspects of contaminated media management found in an IM might necessitate a permit modification to comply with RCRA. If the contaminated media is not contaminated with a hazardous waste that is listed or characteristic then the facility can store, treat and disposal of the media without worrying about RCRA (including LDR). If the media does contain a hazardous waste, then the facility will have to manage the media as a hazardous waste (i.e., worry about meeting any RCRA storage, treatment or disposal standards, including meeting LDR.